



Unit 2 – Creating Systems To Manage Information

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Part B – Forms

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B 1.1

Basic Data Entry

Forms

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Learning Objectives



To be able to create a basic data entry Form in access.



To be able to add simple data validation to a data entry Form.



To be able to format a data entry Form according to exam requirements.



Before We Start



Make sure that you:



Are familiar with creating Tables and Queries in Microsoft™ Access.



Are familiar with using the Query and Report Wizards and switching between datasheet and design view.



Can add and move controls on Reports and change their properties.



Before We Start



You should have the databases used in Part A of this resource series.



If you do not have these, they have been provided for you.



What Software Are We Using?

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Using Microsoft™ Access.



The software you are using in this exam is Microsoft™ Access.



It is one of the most popular desktop RDBMS programs in the world.



It is very good for small businesses and smaller offices.



It is not very good for large databases or web-based applications.



Using Microsoft™ Access.



Your Unit 2 Exam is a ***Practical Exam***.



You will be expected to be able to use the Using Microsoft™ Access software.



You will be expected to be able to create Forms.



You will need this software downloaded at school and at home.



Downloading Microsoft™ Access.



Microsoft™ Access is free as part of the Office 365 suite of programs.



Unlike Word and Excel, you ***cannot open it in a browser!***



You must download and install it onto your computer.



You will need to check to see where you are creating the database files.



Query Revision

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The Different Parts Of A Query

All queries are made up of the same four parts:

<i>WHAT</i>	Exactly what columns are to appear in the query answer?
<i>FROM</i>	Which tables are the data coming from?
<i>WHERE</i>	What is the question being asked?
<i>ORDER BY</i>	How is the answer to be shown?



Arithmetic Operator

Operator	Purpose	Example	What is this doing?
+	Adds two numbers together.	[ItemTotal] + [TotalVAT]	Adds the total VAT to the cost of items
-	Subtracts one number from another	[TotalPrice]-[%Discount]	Takes away a discount from the item total
*	Multiplies two numbers together.	[ItemQuantity]* [ItemPrice]	Calculates the total cost for the number of items purchased
/	Divides the first number by the second number.	[ItemTotal]/ [NumberOfItems]	Works out the average cost of an item
Mod	Gets the remainder of a division.	[Number] Mod [2]	Used to work out if a number is odd or even



Comparison Operator

Operator	Purpose	Example	What is this doing?
<	Checks to see if one value is less than another.	20 < 20	FALSE - 20 is not less than 20.
<=	Checks to see if one value is less than OR EQUAL TO another.	20 <= 20	TRUE - 20 is equal to 20
>	Checks to see if one value is greater than another.	21 > 20	TRUE - 21 is greater than 20.
>=	Checks to see if one value is greater than OR EQUAL TO another.	19 >= 20	FALSE - 19 is less than 20.
<>	Checks to see if one value is not equal to the other value	18 <> 19	TRUE - these are not the same



Logical Operator

Operator	Purpose	Example	What is this doing?
AND	Checks to see if two expressions are true	$> 1 \text{ AND } < 5$	Checks to see if a number is in the range 2,3,4.
OR	Checks to see if one or both expressions are true	$< 2 \text{ OR } > 7$	Checks to see if a number is OUTSIDE of the values 2,3,4,5,6,7.
NOT	Is true when the expression is false	Not ($< 2 \text{ Or } > 7$)	Checks to see if a number is in the range 2,3,4,5,6,7.



What Happens in Part B of the Exam?

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What Was Part A of the Exam?



In part A of the exam, you were required to design and normalise a database.



You were ***given the data*** you needed to put into tables.



You needed to add ***validation*** to your database.



You needed to create ***queries*** and ***reports***.



You needed to do ***testing*** and ***evaluation*** of the database structure.



What Is Part B?



In part B you are ***given*** a partially completed ***database***.



You are not allowed to change or modify this database structure in any way.



You cannot add any columns.



You cannot add any validation to the database.



You cannot change the relationships between the tables.



What Is Part B?



The database will be based around the scenario you were given in part A.



This database will have a lot more data in it.



What Is Part B?



You are required to create Forms in part B.



There are two types of Forms to create.



Data Entry Forms - which will add a row of data to a database table.



Data Search Forms - which will pull out data from a database.



What is Part B?



You will need validate your form data input using ***VBA macro code***.



You will need to design and layout your form ***properly***.



You will need to pay attention to ***a consistent house style***.



This is different to the Part A reports.



You will get marks for how ***easy your form is to use***.



What is Part B?



As before, there is a section on ***testing*** and ***evaluation***.



You will need to test the ***functionality*** of your forms.



You will need to evaluate how ***easy to use*** your forms are



Creating Input Forms

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What Is An Input Form?



An Input Form is a type of User Interface.



It can do one of two things:



It can add data to a database.



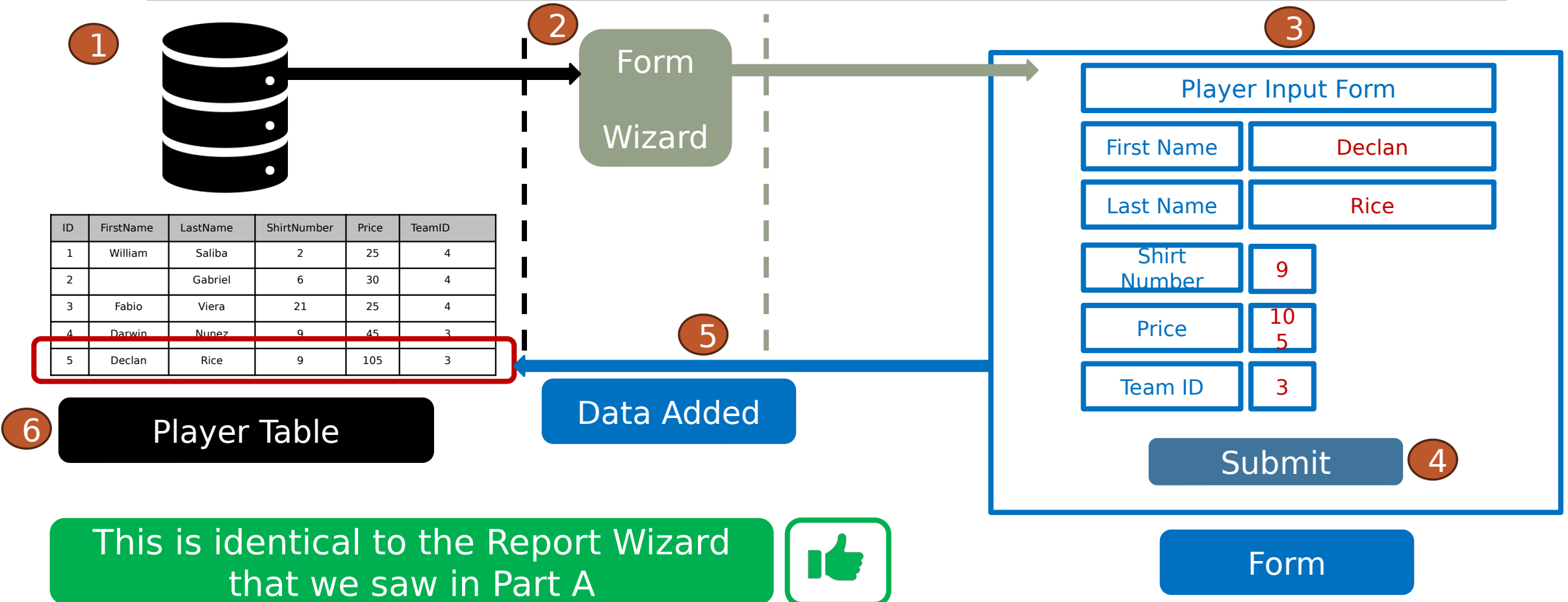
It can search a database to find data.



We are going to create a form to ***add data to the database.***



Creating An Input Form





What Is Going On?



Step 1 - The database contains a Table.



Step 2 & 3 - The Form Wizard creates an Input Form based on the Table Fields.



Step 4 - Data is input into the form and the Submit Button is pressed.



Step 5 - The form data is sent to the database table.



Step 6 - A new record is added to the table.



Data Input Forms Are Based On Tables



When creating an input form, you will ***base this on a table.***



When creating a search form, you may use either a ***table or a query.***



This lesson will focus on creating Data Input Forms only.



Creating Forms With The Wizard

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Class Activity – Creating A Data Entry Form



We are going to be using the Football Team database.



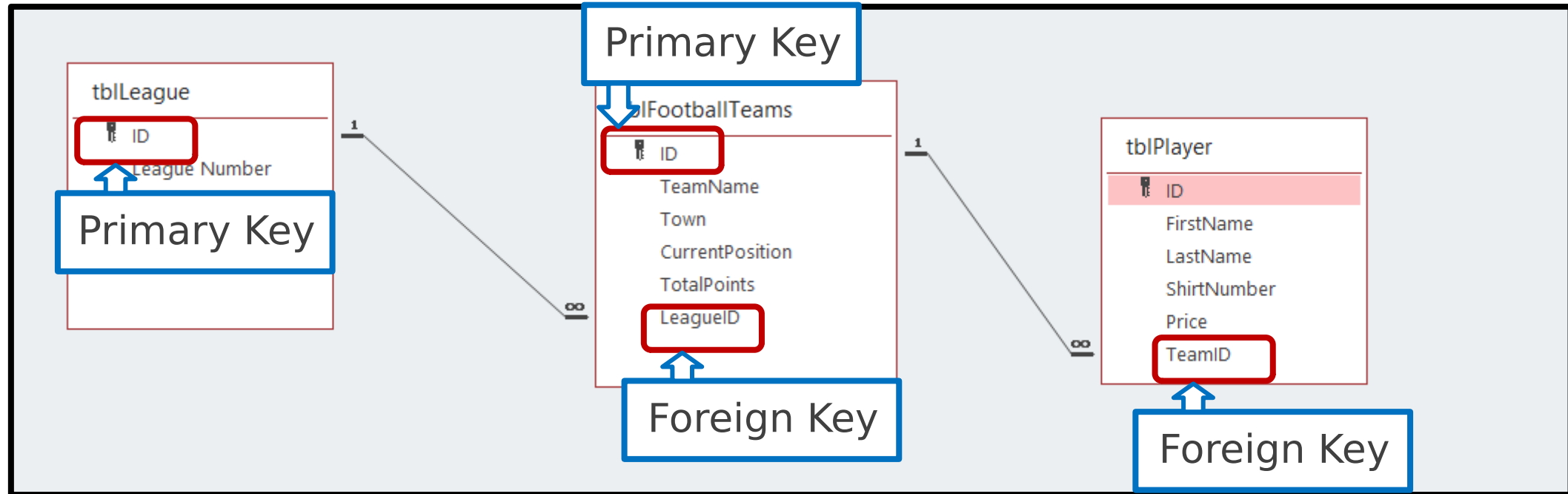
We are going to create a simple ***Player Data Entry Form.***



This will allow us to add a player to the player database.



Supplied Database Relationships



There are three tables in the supplied database, each linked by foreign keys





Exam Tip – Look At Your Database



When you get given the database in Part B.



Open the database tools and view the ***relationships***.



Look at the ***Primary Keys*** of the tables.



Look at the ***Foreign Keys*** of the tables.



See how the tables are linked.



The Player Table

Field Name	Data Type
ID	AutoNumber
FirstName	Text
Price	Number
TeamID	Number

Primary Key

Autonumber

ID	FirstName	LastName	ShirtNumber	Price	TeamID
1	William	Saliba	2	25	4
2			6	30	4
3			21	25	4
4	Darwin	Nunez	9	45	3
5		Adrian	13	0	3
6	Mason	Mount	7	55	2
7		Casemiro	18	45	2
8	Marcus	Rashford	10	85	2
9	Tom	Holmes	3	5	6
10	Sam	Hutchinson	4	4	6
11	Femi	Azeez	15	6	6

Look at the table structure as well as your data





Exam Tip – Look at the Structure and Data



If your primary key is an autonumber data type



This means that you ***do not need to do anything.***



It will automatically increment whenever you add a new record.



If you look at the data and you see ***repeating values.***



This would indicate some form of ***user selection*** on your form.



The Form Wizard



Forms in Access are similar to Queries and Reports.



There is a **Wizard**, to help you create the Form.



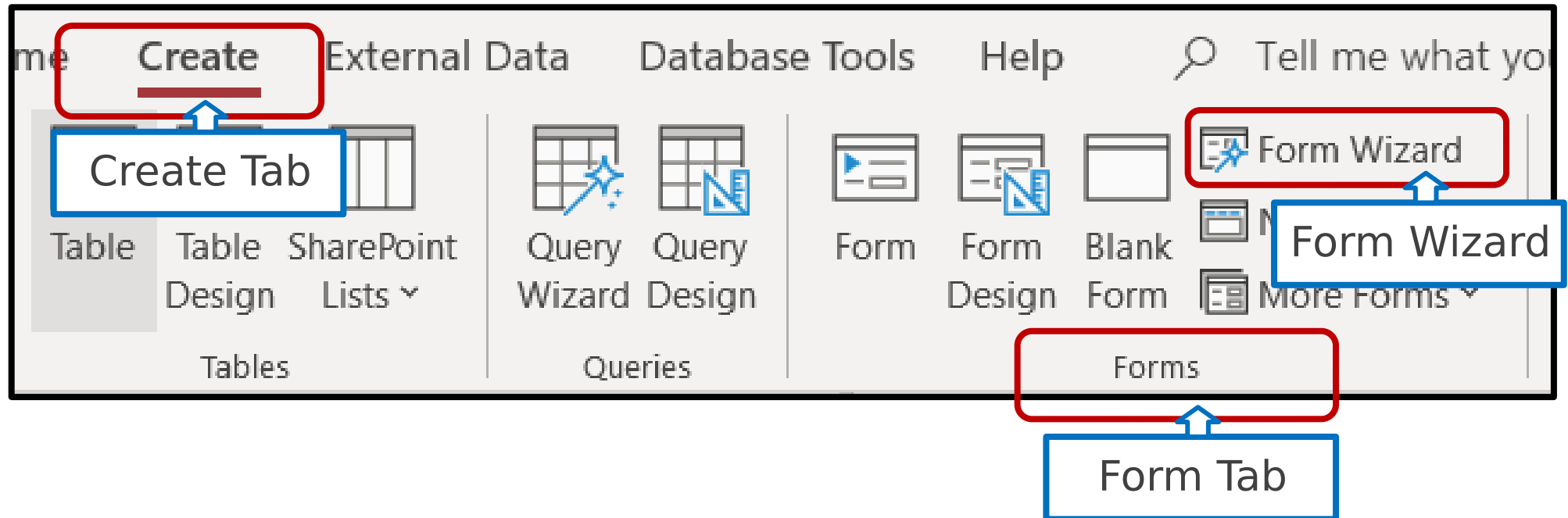
There are **Design views** where you can change the Form properties.



There are **Form views** where you can look at the actual Form.



Open The Form Wizard



The Form Wizard is in the Create tab –
Next to Queries and Reports



Video – Creating A Simple Data Entry Form





Class Tasks B1.1 – Basic Data Entry Forms In Microsoft™ Access



Look at the tasks given to you based on the supplied Customer and Student databases.



For each task, create new Data Entry Forms to answer the specified questions.



Create appropriate screenshots showing the Form designer and Form view, as well as the database table in Datasheet View.



Time allowed: 45 minutes



Self-Check: Lesson Review



Can I explain what a Form is and how it works?



Can I use the Form Wizard to create a simple data entry Form?



Can I move controls around on a Form?



Can I add and configure a Combo Box control?



Can format the Form according to the exam requirements?



Further Reading

Websites

<https://www.lifewire.com/data-input-via-forms-1019283>

Videos

<https://www.youtube.com/watch?v=iAktnLZCVUI>

Textbook: pp143 - 163



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